NCI Symposium:
International Harmonization of Biorepository Practices

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Presentation Summary

NCI'S ROLE IN HARMONIZING POLICIES AND PROCEDURES FOR CANCER BIOREPOSITORIES

Andrew C. von Eschenbach

National Cancer Institute

The Director of NCI, Dr. von Eschenbach affirmed the need to pay attention to the issue of how as well as what needs to be done. Until recently, the understanding of cancer has been based entirely on gross phenotypic manifestations. About 10 years ago, the field of cancer research started a metamorphosis, moving from a macroscopic and microscopic view to a molecular view. Now, we have the insights and tools for previously unimaginable opportunities: understanding diseases at the fundamental genetic, molecular, and cellular level. We need to think differently about disease and act differently to find solutions to disease, based on the implications of this era of molecular medicine.

This era of personalized, molecular medicine will change the taxonomy of diseases. We will no longer just describe disease in terms of organ of origin. From the molecular perspective, we will redefine diseases based on mechanism. For example, fiber can be good or bad for colon polyps depending on the genetic mechanism giving rise to them.

We need to extend research to the global level. As we move from a macroscopic/microscopic view to a molecular one, no single discipline or institution can capture all the diversity that needs to be captured and understood. In some cases, such as certain rare pediatric cancers, researchers need access to a wide number of patients to make progress. We have opportunities to contribute to advances collectively and collaboratively. Doctors and researchers tend to work in a culture that emphasizes individual achievement and promotion. We must move to a culture that recognizes that our performance is interdependent. We need

more than to harmonize information technologies and how to freeze a specimen and how a gene array works; we need to work as a team. NCI's biomarkers initiative is meant to help detection and prevention; it is also looking for biomarkers that track, for example, the toxicity of therapies. Insights from this research can help the treatment of chronic and infectious diseases as well as the treatment of cancer.

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